

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001193**Date Inspected:** 07-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC welder Chuan Chenzong ID Number 044824, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC approved Weld Procedure Specification (WPS) WPS-B-T-2231-B-U2-F-1 in the 1G position to weld the root pass in Floor Beam Sub-Assembly FB017-01 at Weld Joint (WJ) Numbers FB017-01-078, 079. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 285 amps, welding voltage 29.5 volts with a travel speed of 512 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Huang Xinlan ID Number 044780, utilizing the Submerged Arc Welding (SAW) Process with ZPMC approved WPS WPS-B-T-2221-B-L2c-S-1 in the 1G position to weld the fill and cover passes Floor Beam Web FB021-01 on WJ FB017-01-079. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 540 amps, welding voltage 30.8 volts with a travel speed of 440 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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The QA Inspector randomly observed ZPMC welder Yuan Wensong ID Number 055491, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2132-3 in the 2F position with an HIT-18-1D Automatic Welding Carriage, to weld Flange PLate X7G to Floor Beam Web FB015-01 at WJ FB015-01-001. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 313 amps, welding voltage 29.1 volts with a travel speed of 456 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Hong Shuili ID Number 044815, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2132-3 in the 2F position with an HIT-18-1D Automatic Welding Carriage, to weld Flange PLate X7L to Floor Beam Web FB015-01 at WJ FB015-01-009. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 295 amps, welding voltage 29.3 volts with a travel speed of 457 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yuan Wensong ID Number 055491, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2132-3 in the 2F position with an HIT-18-1D Automatic Welding Carriage, to weld Stiffener X2H to Floor Beam Web FB015-01 at WJ FB015-01-011. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 290 amps, welding voltage 28.7 volts with a travel speed of 455 mm per minute. The weld parameters appeared to comply with contract requirements.

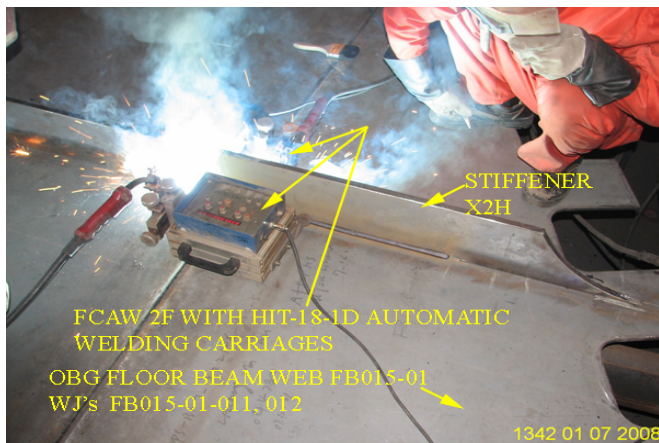
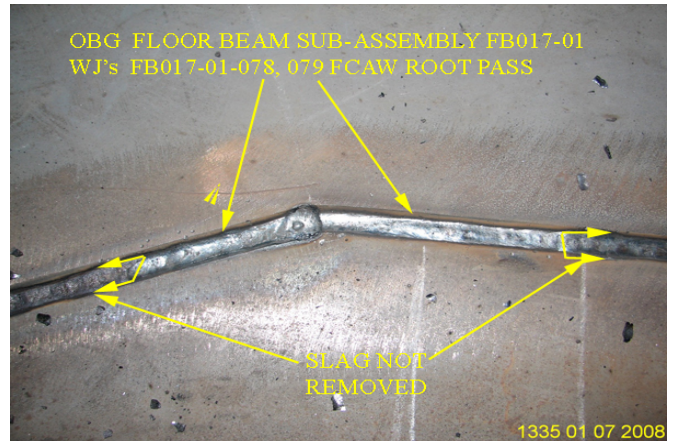
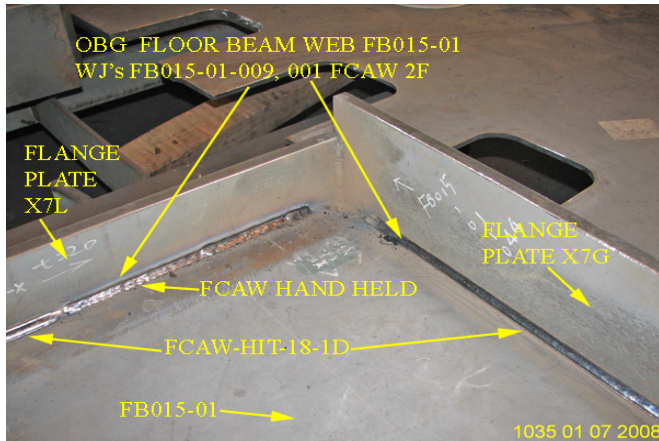
The QA Inspector randomly observed ZPMC welder Hong Shuili ID Number 044815, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2132-3 in the 2F position with an HIT-18-1D Automatic Welding Carriage, to weld Stiffener X2H to Floor Beam Web FB015-01 at WJ FB015-01-012. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 310 amps, welding voltage 29.7 volts with a travel speed of 453 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed a ZPMC helper utilizing a grinder to blend the 2F fillet welds attaching Stiffeners X2E, X2F, X2H, X3K, X3L and Flange Plates X7G and X7L to Floor Beam Web FB002-03.

The QA Inspector randomly observed ZPMC Torch Cutting Operator Ms. Shi Gui Ju utilizing a track mounted Long Wai torch cutting apparatus to trim the edges of Plates 14C (T=12 mm) and 19B (T=12 mm), of Floor Beam Sub-Assembly FB021-02. The attached photograph provides additional detail.

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Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer